PROCEEDINGS

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BIOLOGICAL SOCIETY OF WASHINGTON

A NEW POCKET MOUSE OF THE GENUS PEROGNATHUS FROM NEVADA.

BY E. A. GOLDMAN.

Woodhouse (Acad. Nat. Sci. Philadelphia, vol. 6, p. 200, 1852) described *Perognathus penicillatus* as "procured in the San Francisco Mountain, New Mexico" [Arizona] without indicating exactly where the type was taken. He remarks: "Of the habits of this animal I know but little." As the rugged, volcanic mountain would be an unsuitable habitat for a member of this sand-loving species, it has been suggested that the type probably came from the Little Colorado Desert to the northeast. Efforts to obtain additional specimens in the general region have thus far been unsuccessful; but four other species of the genus have been taken in limited numbers, and more thorough field work may still reveal the true habitat of typical penicillatus.

The type was not designated by number and was not entered in the National Museum catalog until April 7, 1857, but seems to have been the specimen referred to by Baird (Mammals of North America, 1857, p. 419). The specimen was formerly mounted with the skull inside, but the skull was removed and cataloged under a separate number, June 4, 1898. The skin is now so faded that the original color can not be determined. In describing the animal Woodhouse (l. c.) says: "* * top of head and back dark yellowish brown * * *." The measurements given by him, especially that of the hind foot, one inch (= 25.5 millimeters), are about the same as those of specimens from Wickenburg and Big Sandy River, which are the nearest of those now available to the type locality, and are currently referred to penicillatus. The skull of the type is rather large

but is equaled by those of the larger individuals assumed to represent the typical form. Pocket mice varying somewhat in color, but deviating little in size or cranial details, inhabit southwestern Arizona and the western side of the Colorado River valley north to extreme southern Nevada. Farther north in the Vegas and Virgin valleys these give way to the hitherto unrecognized geographic race here described.

Perognathus penicillatus seorsus, subsp. nov.

VIRGIN VALLEY POCKET MOUSE.

Type.—From sand flat along Virgin River, 7 miles above Bunkerville, Clark County, Nevada. No. 27598/39697, ♂ adult, skin and skull, U. S. National Museum (Biological Survey collection); collected by Vernon Bailey, May 9, 1891. Original number 2743.

Distribution.—Vegas and Virgin River valleys, Nevada, and doubtless extending up along the Virgin River into extreme northwestern Arizona.

General characters.—A large subspecies, closely allied to Perognathus penicillatus penicillatus of Arizona; general size about the same; upper parts more strongly suffused with pinkish buff, less grayish; skull narrower across mastoids and differing in other details. Very similar in color to Perognathus penicillatus angustirostris of the Colorado Desert, and to Perognathus penicillatus stephensi of Death Valley, California, but larger than either—much larger than stephensi; cranial features distinctive.

Color.—Type (unworn pelage): Ground color of upper parts in general "pinkish buff" (Ridgway, 1912), finely and inconspicuously mixed with black; under parts in general, forearms, and feet white, a sharp line of demarcation on cheeks, shoulders, and along sides; ears thinly clothed with short, fine, brownish hairs, a small basal white spot present as usual in the species; tail light brownish above, white below. Color quite uniform in all

specimens examined.

Skull.—Very similar in size and general form to that of typical penicillatus, but narrower across mastoids (mastoid width in adult male, 13.5; mastoid width in type of penicillatus, 14.3); maxillary arm of zygoma broader, the lateral wing more strongly developed; upper surface of nasals slightly more depressed between premaxillae; mastoid and auditory bullae smaller. Similar to that of angustirostris, but larger; rostrum broader, the sides less evenly tapering anteriorly, owing to more swollen premaxillae over roots of incisors; maxillary arm of zygoma broader, the lateral wing more strongly developed; mastoid and auditory bullae relatively smaller; upper incisors broader, a character correlated with swelling of premaxillae over roots of these teeth. Compared with that of stephensi the skull differs in much larger size, and otherwise in about the same details as from angustirostris.

Measurements.—Type: Total length, 202 mm.; tail vertebrae, 102; hind foot, 26. Two adult topotypes, respectively: 192, 196; 105, 105; 24.5,

24.5. Average of 10 adults from Colorado River, near mouth of Vegas Wash, Nevada: 203.6 (186-215); 112 (102-129); 25 (23.5-26).

Skull.—(type [3] and an adult male from Colorado River, near mouth of Vegas Wash, Nevada, respectively): Occipitonasal length, 27.6, 28.1; zygomatic breadth, 14.2, 14.2; mastoid breadth, 13.5, 13.5; length of interparietal, 3.2, 3.5; width of interparietal, 7.5, 6.9; interorbital constriction, 6.4, 6.7; length of nasals, 11.1, 11.3; maxillary toothrow (alveoli), 4, 4.3.

Remarks.—The present form is distinguished from subspecies penicillatus as now understood, by a combination of rather slight but fairly constant characters. The species as a whole favors sandy or soft alluvial soils along stream bottoms, and it is, therefore, not surprising that a single form should range across the lower part of the Colorado River Valley, where shifting river channels may transfer colonies from either side to the other.

Specimens examined.—Total number, 39, all from Nevada, as follows: Colorado River (near mouth of Vegas Wash), 23 (7 skulls only); Vegas Valley, 13; Virgin River, 7 miles above Bunkerville (type locality), 3.